

Applicant: Ching-Huang Lin
Application No.: 10/750,137

Arguments

In view of the foregoing amendments and the following arguments, reconsideration of the present patent application is respectfully requested. Claims 1 and 11 are amended and the features thereof are also incorporated with those of claim 17 to distinguish the present invention from the cited references. All of the amendments are fully supported by the descriptions and drawings of the present invention as originally filed, and therefore there is no new matter added therein.

Rejection under 35 U.S.C. §102 Based on Suzuki

The Action rejected claims 1-2, 4-8, 10-12, 14-16 and 20-21 under 35 U.S.C. 102(e) as being anticipated by Suzuki et al (U.S. 6,536,932).

As to the independent Claims 1 and 11, the Action argues that Suzuki has disclosed a spread illuminating apparatus having a light guide plate having a side, first and second luminaries disposed on each end of a light guide stick, and the light guide stick having light guide concave sections. Therefore, the Action concludes that the features of Claims 1 and 11 of the present application have been disclosed by Suzuki.

However, there are claimed elements that are not present in Suzuki, which shall be discussed below.

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The flat lighting structure recited in claim 1 includes a light guide plate having a side, a light guide stick having two ends and disposed by the side of the light guide plate, a first luminary and a second luminary disposed at two ends of the light guide stick for providing a light, and a refracting layer formed between the light guide stick and the light guide plate for changing a transmitting direction of the light, wherein the light guide stick further comprises a light guide concave disposed between the first luminary and the second luminary for guiding the light toward said light guide plate through the refracting layer. This differs from Suzuki's spread illuminating apparatus because Suzuki's spread illuminating apparatus does not have the refracting layer for changing a transmitting direction of the light. Furthermore, according to Column 3, Line 64 to Column 4, Line 4 of the Suzuki's Patent, it is clear that the spread illuminating apparatus only uses one luminary in one end of the light conductive member, while the other end of the light conductive member is provided with a light reflection plate rather than a second luminary disposed thereat. Therefore, it is clear that the components of flat lighting structure recited in Claim 1 of the present application are distinctly different from those of the spread illuminating apparatus disclosed by Suzuki.

On the other hand, as recited in claim 1, before entering into the light guide plate, the transmitting direction of the light provided by the luminaries are

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by the light guide concave and the refracting layer in sequence. Therefore, it is clear that Suzuki's complicated structural design of the light guide concave for accurately guiding the light into the light guide plate is not necessary in the present invention. Accordingly, the claimed invention allows for a simpler design for the geometry of the light guide concave, which in turn results in an easier manufacturing process.

Based on the above, since the components of the flat lighting structure recited in claim 1 are different from those of Suzuki's spread illuminating apparatus, and the advantage of the claimed simpler structure design of the light guide concave cannot be achieved by Suzuki, the applicant respectfully submits that claim 1 of the present application should be patentable over the Suzuki's patent.

Correspondingly, as to Claim 11 of the present application, although the structural feature of the light guide stick, light guide concave and the refracting layer are incorporated into the light guide plate, the flat lighting structure of claim 11 is also distinct from those disclosed by Suzuki. Further, the advantage of the simpler structural design of the light guide concave fulfilled by the incorporation of the refracting layer is also not taught or anticipated by Suzuki. Therefore, the applicant respectfully submits that Claim 11 of the present application should be patentable over Suzuki.

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Accordingly, since the independent claims 1 and 11 are patentable over the Suzuki's patent, the dependent Claims 2, 4-8, and 10 and Claims 12, 14-16 and 20-21 should also be allowable as being dependent on allowable claims 1 and 11, respectively.

Rejection under 35 U.S.C. §102 Based on Maeda

Furthermore, the Action also rejects Claims 1, 4, 11 and 14 under 35 U.S.C. 102(e) as being anticipated by Maeda et al (U.S. 6,883,924). As mentioned above, the flat lighting apparatus of claims 1 and 11 recites the features of the light guide concave and the refracting layer for cooperatively guiding and adjusting the transmitting direction of the light into the light guide plate. However, such distinguishable features are not disclosed or anticipated by Maeda. Therefore, it is clear that the structural features of flat lighting structure recited in claim 1 or 11 are distinctly different from those of the lighting apparatus disclosed by Maeda. Accordingly, the applicant respectfully submits that claims 1 and 11 should be patentable over the Maeda's patent. In addition, since the independent claims 1 and 11 are patentable over the Maeda's patent, the respective dependent claims should also be allowable as being dependent on allowable claims 1 and 11, respectively.

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Rejection under 35 U.S.C. §103

Claims 17-19 are rejected under 35 U.S.C. 103(a) as being anticipated by Suzuki et al. combined with the knowledge of one of ordinary skill in the art. While claim 17 has been cancelled herein, some of its elements are incorporated into the independent claims, and thus, the Applicant responds to this rejection as follows.

The Action argues that the features recited in the original claim 17 are obvious to one having ordinary skill in the art at the time the invention was made, since the application has not disclosed that creating the reflecting layer solves any problem or is for any particular purpose and it appears that the invention would perform equally well using a reflective coating. However, as described above, since the transmitting direction of the light provided by the luminaries are guided and changed by the light guide concave and the refracting layer in sequence, the light guide concave does not require a complicated structural feature for accurately guiding the light into the light guide plate, as would be required in Suzuki combined with a reflecting layer. Neither Suzuki nor any reference teach or suggest the claimed features as noted above.

Furthermore, as to dependent Claims 3, 9, 13 and 22, since both the independent claims 1 and 11 of the present application are believed to be

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patentable, these dependent claims also should be allowable as being dependent on the allowable independent claims.

Conclusion

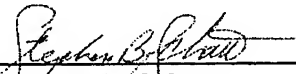
If the Examiner believes that any additional minor formal matters need to be addressed in order to place this application in condition for allowance, or that a telephone interview will help to materially advance the prosecution of this application, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

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In view of the foregoing amendment and remarks, Applicants respectfully submit that the present application, including pending claims, is in condition for allowance and a notice to that effect is respectfully requested.

Respectfully submitted,

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